Manitoba

Annual Report 1989 - 90

The Clean Environment Commission

91-06452/

Minister of
Environment

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

His Honour
The Honourable George Johnson
Lieutenant-Governor of Manitoba
Room 235 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Your Honour:

The undersigned has the honour to present the Annual Report of The Clean Environment Commission detailing its activities for the fiscal year ending March 31, 1990.

Yours sincerely,

J. Glen Cummings
Minister of Environment

Manitoba

Manitoba

Clean Environment Commission

Office of the Chairperson

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The Honourable J. Glen Cummings
Minister of Environment
Room 344 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Dear Mr. Cummings:

Pursuant to the provisions of Section 6(10) of The Environment Act I am pleased to submit to you the Commission's annual report for the year ending March 31, 1990.

Submitted on behalf of the Commission.

O. Stanley Eagleton
Chairperson

Table of Contents

TITLE PAGE

The Clean Environment Commission 3

Introduction 5

Hearings 11

- Water Pollution Control 11
- Air Pollution Control 20
- Surface and Groundwater Matters 21
- Industrial Operations 24
- Other Hearings 31

List of Public Hearings 34

THE CLEAN ENVIRONMENT COMMISSION

During the 1989-90 year, Commission membership consisted of the following citizen appointees and full-time chairperson. The Minister responsible for the Clean Environment Act for the period under review was the Honourable J. Glen Cummings, Minister of Environment.

Members of the Commission appointed by Order-in-Council October 24, 1988 for a term of three years and thereafter until their successors are appointed were:

Mr. Stan Eagleton, Civil servant, Winnipeg, Chairperson
Mr. Arnie Barr, Retired civil servant, Portage la Prairie
Mr. Maurice Blanchard, Commercial fisherman, Portage la Prairie
Ms. Linda Ericsson, Newspaper employee, Winnipeg
Mr. Len Flett, Retail executive, Winnipeg
Mr. Ed Gramiak, Building contractor, Winnipeg
Ms. Elizabeth Pawlicki, Real estate agent, Winnipeg
Ms. Donna Plant, Community worker, Winnipeg
Ms. Joan Vestby, Insurance agent, Swan River
Dr. Barrie Webster, University professor, Winnipeg
*Mr. Ed Johanson, Community worker, Clearwater Lake (The Pas)

*Mr. Johanson was appointed to the Commission for the purpose of the Commission's hearings and report on the Repap Manitoba Inc., Phase I, proposal for the pulp and paper mill operation at The Pas.

STAFF

Secretary/Technical Adviser.....Mr. Jim Warrener
Environment Officer.....Mr. James Sparling
Administrative Secretary.....Ms. Regine Kublanski

INTRODUCTION

Since the first modern environmental legislation, The Clean Environment Act, was passed in Manitoba in 1968, the hearing process of the Clean Environment Commission has provided the opportunity for public discussion and participation into environmental decisions and the regulation of emissions which are potentially harmful to the environment.

The current Environment Act, proclaimed March 31, 1988, provides not only for the licencing and regulation of the point source emission of pollutants but also provides that the licencing of any proposed development, which may impact on the environment in a variety of possible ways, must be given consideration in terms of today's concerns and the awareness of an increasingly knowledgeable and concerned citizenry. The effects of an alteration of a natural resource as well as any "significant impact of a 'development' on the social, economic, environmental health and cultural conditions that influence the lives of people or a community - insofar as they are caused by environmental effects" - are included for consideration within the scope of the Environment Act.

The Commission is made up of a number of persons, to a maximum of ten, representing a variety of walks of life and possessing a diversity of background knowledge and experience, appointed to serve on the Commission by Order-in-Council for a specified term. Since its inception, the Commission has been chaired full-time by a senior civil servant at the deputy minister level. The Commission has a secretarial staff and a technical adviser who provides assistance in the determination, understanding, and evaluation of issues.

With the approval of the Minister, the Commission may also add members of the Manitoba Environment Council or other qualified persons to the Commission to assist and advise the Commission in hearings or investigations. Members so added have all the powers and responsibilities of the Commissioners with respect to the hearings, meetings or investigations for which they were appointed.

In its hearing considerations, the Commission always attempts to hold its hearings in the community or communities most directly affected by the project under consideration, as well as in other centres when there is a wide area of interest or concern.

The Commission is separate and independent from the Environment Department and reports directly to the Environment Minister, to whom the Commission is responsible and from whom it receives requests for hearings. The Commission must, of necessity, be independent and isolated from any Ministerial direction or other political influence in all of the specific undertakings and considerations referred to the Commission. It is also essential that all Commissioners be free of any personal conflict of interest in any matter under consideration by the Commission.

In essence, the Commission must make an independent judgement in matters which it is asked to consider and give its advice and recommendations in accordance with its own perception of propriety following hearings and subsequent review of the presentations received. There is no specific direction to the Commission within the Environment Act with regard to what shall govern the Commission's recommendations or what is to be achieved or protected. In this regard the Commission's authority and responsibility are simply mandated as the holding of public hearings when asked by the Minister or the licencing "director" of the Environment Department when a public interest or concern, that warrants a hearing, has

been identified. Following the hearings the Commission is required to make a report to the Minister giving its advice and recommendations. Traditionally, the Commission has adopted as its own mandate the provision of the maximum protection that can be achieved for the environment, within the bounds of practicality. It's objective is the provision of advice and recommendations for an environmental licence that the Commission judges to be reasonable and appropriate for a licencing matter that is under consideration, with environmental protection being the underlying consideration.

The Commission's judgement is a collective one, determined after careful consideration of all of the evidence and argument received at a public hearing. The Commission attempts to achieve a consensus, and usually succeeds, but often only after the sifting and refinement of divergent views among its members during which compromise is sometimes necessary. With widely divergent and strongly held opinions, arguments, and evidence frequently being presented to the Commission on very complex matters - having a variety of possible environmental, economic, social and even cultural effects - the achievement of agreement is frequently not an easy task.

The Environment Act also gives the Commission the mandate to conduct on its own volition investigations into any environmental matter and to make a report with recommendations to the Minister. Over the years, the Commission has conducted a number of investigations on matters of general environmental concern, such as the establishment of the classification of, and water quality objectives for, Manitoba's surface waters; the development of control regulations for the storage and handling of petroleum products; mosquito control programs; and, most recently, the burning of farm crop residue and peat overburden burning practices. All past Commission investigations have been done at the request of the Minister.

As the Manitoba Environmental Council has a similar mandate under the Act to conduct investigations, it is possible that future cooperative investigations by the Council and the Commission into some matters of general environmental concern might be practical and beneficial, utilizing the resources and strengths of both of these bodies.

The Commission must also hold hearings and provide advice and recommendations when an "abatement" project has been registered under the Environment Act. Such a project may be initiated by a municipal authority when there appears to be an otherwise insolvable land use conflict and where the removal of one or other of the facilities creating a mutual problem is the necessary or most practical solution. There have been only two such projects undertaken since the Clean Environment Act - which created this option - was amended in 1974. Both abatement projects involved situations where there was conflict caused by the close proximity of an industrial operation to a residential district, one in the City of Winnipeg and the other in a town in southern Manitoba. In one case, the industrial operation was removed and in the other, involving a large and costly industrial facility, a number of residences were moved to create an effective buffer zone between the conflicting uses.

The Environment Act and Regulations set out three formally designated classes of development proposals, each of which may require the proponent to prepare an environmental impact assessment of the proposal to the satisfaction of the Departmental licencing "director" who may require the proponent to undertake additional studies or the compilation of such additional information as may be considered to be necessary.

Guidelines and instructions for the necessary environmental impact assessments are provided by the Department. Part of the environmental impact assessment process is the requirement that a copy of the proposal be

filed with the Interdepartmental Planning Board and that a copy also be circulated to such other departments as may be affected by the development for their review and comment. In addition, a Technical Advisory Committee of appropriate departmental officials may be appointed to jointly consider and comment on the proposal in order to assist the deliberations of the Interdepartmental Planning Board.

The consideration and preparation of an adequate environmental impact assessment is an essential preliminary requirement preceding any subsequent judgment and recommendations for licencing considerations. The procedures outlined in the Act should provide the vehicle for the preparation of satisfactory environmental impact assessment reports and bring into play the important professional expertise contained within the ranks of the staff of government departments.

The Act also assures that the public are kept informed by means of a Public Registry. A summary of the proposal is filed in public registries located throughout the Province. Advertisements concerning the proposals are also placed in local newspapers. Such advertisements, and the placement of the proposal and environmental assessment in the Registry, provide assurance that the public will have opportunity to express comments, concerns, or objections. It is these expressions of concern which stimulate a request by the Environment Minister for a Clean Environment Commission hearing.

When the Commission has received a hearing request, the provision of public information and consultation concerning suitable hearing dates, pre-hearing exchange of information and questions, and the distribution of environmental impact assessment and other hearing material to interested parties and hearing participants comes under the direction of the Commission. The Public Registry system of the Department of Environment is

utilized to provide an additional vehicle for the dissemination of appropriate hearing information to the public during the development and conduct of the Commission's hearings, leading to its report to the Minister.

An interested, informed, and participating public is a key objective in the successful operation of the Environment Act. In its operations, the Commission has attempted to ensure that this objective is achieved.

HEARINGS

The Commission held a total of 17 hearings during the fiscal year 1989/90. Eight of the hearings dealt with concerns arising from proposals for the treatment and disposal of municipal wastewater and sludge. Four of the hearings were held in connection with concerns relating to surface and ground water. Three hearings addressed air, water and soil environmental impacts connected with industrial operations. Of the remaining 2 hearings, one was an air pollution consideration while the other was a concern for the impact of a highway re-location on an environmentally sensitive wetland.

WATER POLLUTION CONTROL

There were six hearings dealing with proposed sewage lagoon operations. Three of these proposals involved Hutterite Colonies, two were about municipal facilities and one resulted from a private enterprise proposal. One of the remaining water pollution control hearings was held to hear representations concerning the proposed land-spreading of sewage sludge by The City of Portage la Prairie. A proposal for a small wastewater treatment plant servicing a rural subdivision was also the subject of a hearing.

Airport Holding Co. Hutterite Colony

The Airport Hutterite Colony is located at the site of the former MacDonald air force training base in the Rural Municipality of Portage la Prairie, 20 km northwest of The City of Portage la Prairie. This land is located adjacent to Long Creek which drains to Lake Manitoba.

When the military base was in operation, the domestic water supply was procured from The City of Portage la Prairie by pipeline. Wastewater was collected and treated in a secondary wastewater treatment plant with effluent being discharged to Long Creek. At the outset, the Colony continued to utilize parts of the former wastewater treatment plant with a discharge to a surface drain and into Long Creek.

The Colony has developed a water supply from a relatively shallow groundwater acquifer. There have been some concerns with respect to a nitrate build up in the water supply probably associated with livestock operations.

The sewage facility proposal, presented by the Manitoba Water Services Board on behalf of the Colony, was to construct a 2 cell sewage lagoon. Two alternative proposals for effluent discharge were made - one to discharge effluent to agricultural land and the second to release effluent, on an intermittent basis, to Long Creek.

Concerned citizens representing residents along the downstream reach of Long Creek as well as the Lake Manitoba Delta Beach Association presented their concerns. Both interests were concerned with water quality impacts on Long Creek and Lake Manitoba from the proposed lagoon effluent discharge.

Although effluent irrigation to agricultural land may be an environmentally preferred method, no information was presented concerning the chemical quality of the effluent and possible degrading effects that the effluent might have on the soil.

The Commission recommended that an investigation be undertaken to establish the suitability of utilizing the effluent for irrigation of agricultural land.

The Commission also made recommendations concerning the discharge of effluent to Long Creek on the basis that water uses in neither the Creek nor the Lake would be impaired if recommended limits, terms and conditions for effluent discharge were imposed by an environmental licence.

Norquay Holding Co. Hutterite Colony

The Norquay Holding Co. Hutterite Colony is located in the Rural Municipality of Portage la Prairie, 5 to 6 km south of Poplar Point. This is a new Colony whose domestic wastewater treatment and disposal requirements were proposed to be served by a 2 cell sewage lagoon system with effluent discharge to agricultural land owned by the Colony.

Concerns were expressed by neighbours about possible pollution of the shallow groundwater aquifer servicing most of the farmsteads in the area. A second concern was that of odor from both the lagoon operation and the proposed disposal of lagoon effluent to agricultural land.

A representative of the Water Resources Branch of the Department of Natural Resources pointed out that the domestic water supply in the area was drawn from underground aquifers, which were former stream channels, and that the clay cut-off trench, proposed to be constructed as part of the exterior dykes of the lagoon, would prevent migration of wastewater into these aquifers.

The Commission concluded that the proposed wastewater system would be environmentally sound and would not result in contamination of adjacent lands or groundwater aquifers. Accordingly, it recommended the licencing of the proposed facilities with appropriate limits, terms and conditions.

Whiteshell Hutterite Colony Farms

The Whiteshell Colony is located in the Rural Municipality of Whitemouth on the east side of the Whitemouth River south of the community of River Hills. Prior to the development of the proposal, domestic wastewater had been accommodated in septic and collecting tanks with effluent trucked by the Colony for disposal on agricultural land under their control. Wastes from a hog operation on the Colony were retained in earth lined lagoons and pumped for disposal onto Colony owned land.

Acting on behalf of the Colony, the Manitoba Water Services Board proposed that a 2 cell sewage lagoon be constructed. Originally the proposal had contemplated the discharging of the treated effluent to the Whitemouth River. However, because of the considerable concern expressed by residents located along both the Whitemouth and Winnipeg Rivers, the proposal to discharge effluent to the river was withdrawn and the Board's representative agreed that lagoon effluent would be disposed of only by application to agricultural land under the control of the Colony.

At the hearing, individuals residing along the Whitemouth River, as well as a consortium of residents, expressed a strong interest in protecting the water quality of the Whitemouth River. Most of the residents located along the river withdraw water from the river for domestic consumption. Charges were made about dead livestock being discarded onto the river ice as well as a description of fish kills allegedly caused by the release of wastes from the Colony to the river.

In its report the Commission recommended that an environmental licence require that all treated effluent be disposed of to land owned by the Applicant and in such a manner that any subsequent drainage to the river would be prevented. A recommendation was also made with respect to a requirement for efficient testing of the quality of the lagoon effluent, to protect the soil from degradation.

Highway Gardens Mobile Home Park

An application filed on behalf of Highway Gardens Mobile Home Park, located in the Rural Municipality of St. Andrews south of Lockport, proposed a variance of the conditions of an existing Environment Department Licence. Changes to the operating regime and available storage of an existing sewage lagoon system were proposed to create additional holding capacity, sufficient to accommodate 110 mobile homes as opposed to the 100 permitted under the existing environmental licence.

The sewage lagoon facility consists of 3 cells which are discharged intermittently (spring and fall) through a municipal drain to the Red River. The proposal called for elimination of the dyke between cells 1 and 2, utilizing this soil to raise the level of the dykes around cells 1 and 2. Operating difficulties with the lagoon system had been experienced from time to time due to a lack of sufficient hydraulic capacity of the lagoon system as well as a faulty effluent discharge control valve.

At the time when the mobile home park was constructed, the surrounding area was much less residentially developed. Subsequently, considerable residential development has taken place and is continuing. There are now existing residences that face and flank the lagoon system with a minimum separation. There is also under development a small housing subdivision that flanks the effluent drainage route from the lagoon to the Red River.

There were a variety of complaints from area residents concerning the mobile home park and sewage lagoon, including concerns about alleged violations of the limit on the number of trailers stipulated in the licence, the quality of lagoon effluent discharged, the open effluent drainage route, disrepaired fencing surrounding the lagoon, and seepage and odors from the lagoon.

The Commission recommended that the limit on the number of mobile homes should remain at 100, that repairs be made to dykes and fencing, and that an investigation of the causes and remedy of seepage be undertaken.

Town of Beausejour Sewage Lagoon Expansion

The Town of Beausejour submitted a proposal to upgrade the town sewage lagoon facility by the addition of a 6.5 hectare cell located north of the existing lagoon cells, which are located north of the community.

A principal concern presented at the hearing was associated with the lagoon effluent drainage route, 1.5 km of which utilizes a municipal drain, with the remaining 10 km being part of a provincial drainage system. These drainage ditches discharge to the Brokenhead River. Concerned farmers, located along the drainage route, alleged that flooding experienced along the drainage route increased as a result of lagoon releases. A large measure of the flooding was said to be due to the overgrowth of vegetation, with nutrients in the effluent being singled out as a cause of this increased growth.

A series of drop structures constructed along the lower portion of the drain had resulted in the ponding of effluent with resultant odor production. There was also a reported flooding of agricultural land on a lower portion of the drain.

Despite the difficulties encountered with the drainage route, there were valid reasons presented that opposed an alternative discharge of lagoon effluent by a pipeline directly to the River.

The Commission recommended that the lagoon expansion be approved and that vegetation overgrowth control and ponding problems in the drainage system be investigated and improved.

The Rural Municipality of Portage la Prairie Liquid Waste Disposal Facility

Municipal governments require facilities to treat and dispose of sanitary wastewater collected by tank trucks from residents and commercial facilities located within their jurisdiction whose sanitary wastes are serviced by septic or holding tanks. Virtually the only site in the Rural Municipality of Portage la Prairie for such a purpose was located at the waste disposal grounds located north of Poplar Point; however, this facility utilized ground depressions that had not been professionally designed or properly constructed for this purpose. This system was also severely overloaded, resulting in the drainage of effluent off the site.

On behalf of the Rural Municipality of Portage la Prairie, Poetker Engineering Consultants had proposed that the existing site be upgraded and that an additional 2 cells be added with sufficient capacity and surface area that the liquid delivered to the site would evaporate.

One local resident felt that newer more innovative methods of wastewater treatment should have been considered including water conservancy to reduce the production of wastewater. There was also a concern expressed about possible run-off during a wet cycle.

The Clean Environment Commission concluded that the proposed facility would provide an acceptable method for disposing of sanitary wastes and recommeded its licencing.

City of Portage la Prairie - Sewage Sludge Disposal Project

The City of Portage la Prairie has operated an activated sludge wastewater treatment plant for a number of years at a location southeast of the City. Sludge, which must be treated and disposed of, is a main

component of the wastewater treatment process. The sludge generated in this wastewater treatment plant has for many years been stored in a lagoon located south of the plant. Originally this lagoon was part of the main treatment system and the two cells were operated as an aerated lagoon system. Some 40 million litres of sludge with a solids concentration slightly less than 9% were stored in the lagoon. In recent years, odor from the wastewater treatment plant and the quality of the effluent discharged to the Assiniboine River have become serious problems and it has become necessary to dispose of this accumulated sludge.

The City's Consultants proposed to dispose of the sludge by application to farm land, a method which is beneficial to the farmer recipient by virtue of the fertilizing and soil conditioning properties of the sludge. The proposal was to mix the sludge in the lagoon to achieve homogeneity followed by removal and injection into agricultural land. Recipient farm soil, location and application rates were chosen to meet environmental and sociological considerations as well as to satisfy agronomic nutrient needs. Tests had been conducted on the sludge to determine its stability and suitability for farm application by the analysis of test results for a variety of constituents. The results indicated that the sludge was acceptable for land application.

Sites were selected that met criteria related to soil characteristics, landscape features and groundwater conditions. Test drilling was conducted at potential sites to ensure the absence of shallow groundwater aquifers.

The presentation was supported by reports of both engineering and soils consultants.

The most serious concern expressed by both representatives of the Rural Municipality of Portage la Prairie and the people residing near selected application sites was that of groundwater impacts. A major housing subdivision in the Rural Municipality of Portage la Prairie northeast of the City of Portage la Prairie, known as Peony Farms, depends on the local groundwater as a source of domestic water supply. Assurances were requested that there would be no soil degradation. The Rural Municipality wanted assurance that road damage associated with sludge hauling would be corrected and that dust suppression on the roads would be the contractor's responsibility. A concern about possible odors was also stated.

After consideration of all of the evidence and argument presented at the hearing, the Commission concluded that the proposal provided an environmentally safe and otherwise acceptable method to dispose of the sludge stored in the lagoon cells. The Commission recommended that an environmental licence stipulate a number of conditions concerning sludge mixing, sludge application rates, crop restrictions, monitoring and road maintenance that would mitigate concerns identified during the hearing.

Deago Properties - Sewage Treatment Plant

A proposal was submitted on behalf of Deago Properties to construct a wastewater treatment plant to service a planned small residential subdivision with an individual lot size of 0.28 ha in the Rural Municipality of St. Clements (East Selkirk) with the effluent to be discharged to nearby Cook's Creek. The land tract in question consisted of a total of 5 ha. The developer expected to receive zoning approval as a RA Suburban Zone which would allow lot sizes of 0.56 ha with septic tank approval or 0.19 ha with a wastewater collection, treatment and disposal system. In his view, the smaller lot represented a better use of the property and a mechanical treatment plant would povide a superior wastewater system to that of a septic tank and soil absorption system.

Council of the Rural Municipality of St. Clements supported the proposal since there are problems with septic tanks and fields in the area and, therefore, there is a need for some other approach to wastewater treatment and disposal in the area. Opponents were concerned about deteriorating water quality in Cook's Creek and also expressed a general concern that more effort should be placed on land use planning to avoid a proliferation of small subdivisions.

Although representatives of the Environment Department stated that the wastewater treatment plant was adequate to treat wastewater flows to a level that would not result in impairment of the water quality of Cook's Creek, they also agreed with the comments of the Provincial Planning Branch that the wastewater treatment plant should not be considered independently of the broader land use and community issues.

The Commission believes that it is logical and necessary to first develop a regional strategy towards improving wastewater treatment in the Rural Municipality of St. Clements and on that basis recommended against licencing the Deago Properties sewage treatment plant.

AIR POLLUTION CONTROL

Cojef Ltd. - Burning Site

A proposal to establish a waste burning site in a depleted sand pit on the edge of Portage la Prairie was submitted by Cojef Ltd. for licencing under the Environment Act. Only wood from trees or wood wastes from demolition and construction were proposed to be burned at the site. The proponent had been trying to locate a wood burning site as part of a proposal to operate a waste disposal grounds in the City of Portage la Prairie.

A petition was received from 90 residents opposing the burning site application for safety and nuisance reasons. A councillor from the City of Portage discussed a City smoke ordinance passed many years before to control small fires, noting that the by-law was never enforced. A representative from the Rural Municipality of Portage la Prairie expressed concern about the burning site since the Rural Municipality boundary is located a short distance from the burning site. A CNR representative raised concerns about potential hazards to rail transport safety resulting from smoke. There are main line rail tracks in the area and smoke could pose a hazard at a nearby grade level crossing. The Environment Department representative stated that, from an environmental view point, open burning of wood demolition wastes is not an appropriate practice.

The Commission recommended that the application by Cojef Ltd. for a licence for the proposed burning site be refused.

SURFACE AND GROUNDWATER MATTERS

Westlake Regional Water Supply Proposal

The Manitoba Water Services Board applied to the Environment Department for a licence on behalf of the Westlake Regional Water Supply System for the development of a water supply. The water sources investigated included Pine Creek, the Whitemud River, Lake Manitoba and groundwater from the Assiniboine Delta aquifer. The proposal included the supply of water to the communities of Katrime, Gladstone, Ogilvie, Plumas and Glenella as well as the domestic supply of individual residences and farmsteads either directly from the pipeline or from truck hauling stations.

In the view of the developer, which included both the Manitoba Water Services Board and the Prairie Farm Rehabilitation Administration

(PFRA), the most logical water supply source was that of groundwater withdrawn from the Assiniboine Delta acquifer at a location known as Hummerston, approximately 16 km southeast of Neepawa.

The Assiniboine Delta aquifer is large in terms of geographical area as well as water volume and capacity. The aquifer reaches Neepawa, Glenboro, Douglas and Austin at its extremities in the north, south, west and east respectively. Currently there is an extensive withdrawal of water from the acquifer for domestic (CFB Shilo, Carberry, Glenboro, Austin and McGregor) industrial (Carnation at Carberry) and agricultural uses (irrigation for potato growers).

The prospective Westlake water users highly desired the use of the Assiniboine Delta aquifer as a water supply source from both an assured quality and quantity standpoint. Many citizens, who lived on the land above the aquifer, opposed the supply of water from the Assiniboine Delta aquifer to locations remote from the aquifer. The Assiniboine Delta Aquifer Protection Association also strongly opposed the proposal. The presentation of this group at the hearing included the analysis of a technical consultant.

The principal concern of the opponents was a possible overuse of the aquifer by the combined water use of those located on top of the aquifer together with others remote from the aquifer, as proposed. The water level of the aquifer has been dropping in recent years (including a series of drought years). Irrigation uses have also been steadily increasing. A group of farmers located in the Lobbville area on the edge of the escarpment were concerned that the flow from natural springs, supplying the local drainage system, would be retarded - thus curtailing the watering of livestock. The opponents felt that the development of one of the other alternative surface water supplies, such as the Firdale Dam on Pine Creek or Lake Manitoba, would make more sense as a source of water supply for the Westlake Regional Water Supply System.

After consideration of all of the evidence and arguments which it had heard, the Commission concluded that the proposed water use could be safely supplied from the Assiniboine Delta aquifer without jeopardizing present uses. The Commission therefore recommended that the proponents of the Westlake project be allowed to withdraw an average 35.8 litres per second from the Assiniboine Delta aquifer at the Hummerston location. This recommendation included a requirement for stringent monitoring. A recommendation that a comprehensive management plan be developed and implemented, with public participation being an integral part of that program, was also considered by the Commission to be important.

North Duck River Headwater Storage Project

The Water Resources Branch of the Manitoba Department of Natural Resources registered a proposal under the Environment Act to construct a headwater storage project on the North Duck River. The purpose of the project was to alleviate flooding upstream and downstream of Cowan. The project included construction of an earth fill dam, with a spillway, and dyking. An access road to the project was also required.

During normal operation, the reservoir would permanently flood a total area of 7 ha whereas, at spring run-off storage capacity, 200 ha would be temporarily flooded. The retention structure is designed to provide protection to farmland along the river near the Town of Cowan from a 1 in 5 year flood. The dykes located at low spots along the river are also designed to prevent overland flooding in agricultural areas from a 1 in 5 year flood.

Representatives of the Cowan Soil and Water Co-op and the Local Government District of Mountain supported the project as a measure to protect the land base in the area. The Environment Department observed that

no significant environmental impacts were noted through the review process. All of the government representatives who spoke at the hearing supported the project.

A representative of the Manitoba Environmental Council drew attention to what he considered to be deficiencies in the EIA. The Mayor of Camperville, a downstream community, said that native people had been overlooked in the planning process. A major concern of his was with respect to changes in the river regime and possible adverse effects on fish and fur bearing animals.

Based on the evidence gathered, a majority of the Commission concluded that significant benefits outweighed any possible adverse environmental impacts and recommended that a licence be issued.

INDUSTRIAL OPERATIONS

Namew Lake Mine/Mill Hudson Bay Mining & Smelting Co.

The Hudson Bay Mining & Smelting Co. Ltd. (HBM&S) registered a proposal under the Clean Environment Act (CE Act) in July 1987 to construct a mine and mill for the development of a nickel/copper ore body at Namew Lake, located approximately 60 km south of Flin Flon near the Saskatchewan border. The former Clean Environment Act permitted construction to commence on a project, once it was registered, before the issuance of a licence. In accordance with these procedures work began on the project; however, in April 1989, the Company filed another registration of the proposal under the new Environment Act which included a depressurizing/dewatering requirement, which had not been anticipated prior to the onset of mine development, and which necessitated the disposal of much more mine water than originally projected. This depressurizing water was also highly mineralized.

At the planned production rate, the expected mine life is only 5.5 years, unless additional ore reserves are proven.

Namew Lake, on which the mine is located, is part of the Saskatchewan River watershed and drains into Cumberland Lake in Saskatchewan. Most of Namew Lake itself is located in Saskatchewan.

Waste from the operation consists of the waste minerals rejected to the tailings collection pond, mine water, and mill process wastes, which are discharged to a wastewater storage pond along with mine depressurizing water, which was anticipated to be a high volume, brackish water stream. The Company proposed to reclaim and re-use at least 80% of the water derived from the tailings pond.

A number of discharge route alternatives for the treated effluent were considered by the Company with 2 singled out as having the best practical potential. These involved effluent discharge to Namew Lake via a fairly large intermediate water body known as Chocolate Lake or discharge to the south basin of Rocky Lake through another small intermediate lake. The Company favored discharge into Chocolate Lake which would act as a stabilizing basin. The Company was prepared to stock Chocolate Lake with a population of trout whose survival and health would then serve as an indicator of satisfactory water quality, especially regarding possible adverse impacts on the fishery of Namew and Cumberland Lakes.

There were 2 major interest groups at hearings which were held in both The Pas, Manitoba and Cumberland House, Saskatchewan.

The Manitoba group largely represented cottage owners located along the northeast shoreline of Rocky Lake. Their concerns centred around a general consideration of the possible discharge of wastewater to their

recreational Lake and, more specifically, a fear that the wastewater might adversely impact a fish spawning area in the Lake. The Saskatchewan group represented residents of 2 communities and 3 Indian Reserves located on both Namew and Cumberland Lakes. Saskatchewan residents, as well as representatives of appropriate agencies of the Government of Saskatchewan, were particularly concerned since there was little or no apparent benefit from the project to Saskatchewan but there was a potential disbenefit associated with wastewater discharge to Namew Lake and the downstream water basin drainage system, largely located in Saskatchewan.

The Commission recommended that a temporary licence be issued, permitting the discharge of mine depressurizing and wastewater storage pond effluent to the east end of Chocolate Lake. Subsequently, a licence was issued to discharge wastewater from the mine/mill operation to Namew Lake, via Chocolate Lake. In addition to limits on the effluent from the wastewater storage pond and the depressurizing water, conditions were also imposed on the reclamation of mill tailings effluent in accordance with recommendations of the Commission. The Commission also proposed that a liason committee, consisting of representatives from both Natural Resources and Environmental Departments in both Manitoba and Saskatchewan - as well as residents of Cumberland House and Sturgeon Landing - be formed to collaborate with the Company in the determination of necessary additional studies. The principal purpose of the committee was to identify an effective monitoring program as well as limnological surveys of Chocolate and Namew Lake that the Company should undertake to ensure that unacceptable environmental impacts were not occurring and to communicate with the local residents on these matters. A tailings pond rehabilitation program was also to be identified.

It was further recommended by the Commission that the Commission hold a hearing on or about July 1, 1990 to determine possible further

mitigative measures that might be undertaken on the wastewater discharge or to prescribe an alternative discharge method, based on the results of studies undertaken on behalf of the liason committee.

The Rural Municipality of Rhineland/Town of Altona - Liquid Waste Holding Ponds for Disposal of Waste from CSP Foods Ltd., Altona

The Rural Municipality of Rhineland and the Town of Altona jointly registered a proposal under the Clean Environment Act for the continued operation of holding ponds utilized for the discharge of liquid waste soap stock from the CSP Foods Ltd. oilseed processing plant, located in Altona. The holding ponds are located a short distance northeast of Altona in the Rural Municipality of Rhineland, adjacent to the landfill solid waste disposal site which serves both the Town and the Rural Municipality. Periodic liquid discharge from the holding ponds has been to a municipal drain which eventually empties to the Red River. The operation has been on-going for a number of years; however, opposition surfaced when the Town and the Rural Municipality purchased an additional 10 hectares of land for the future expansion of the waste disposal facilities. Currently there are 6 cells in use.

Originally the CSP plant was essentially a crushing operation producing crude oilseed oil; however, much of the crude oil is now refined. The refining process produces a by-product (soap stock) which consists of fatty acids, gums, sodium hydroxide and water. Some of the waste material is added to animal feed as a food supplement. The balance, consisting of 2-3 truck loads per day, is hauled to the holding ponds. At one time, the surface scum collection was burned from the initial cells resulting in the production of smoke and odor which adversely impacted on nearby residents, but this practice had been discontinued for the last 2 years. With an additional larger cell coming on line, it was expected that dewatering to

the drain might not be necessary. The Company is also currently exploring alternatives for its production process which might reduce or eliminate the necessity to deposit the soap stock in the ponds.

Concerns from nearby residents included possible contamination of ground or surface water, smoke from burning and odor. There was also a concern for waterfowl which sometimes land on the pond surface and become coated with the waste oil to the extent that they perish.

The Commission recommended that a licence be issued under the Environment Act that would prohibit the burning of soap stock in the holding ponds; that appropriate limits, terms and conditions be placed on any liquid discharge; that drainage and fencing of the holding ponds be undertaken; that the Company continue pursuing alternatives to the present method of disposing soap stock and report annually to the Environment Department on this progress; that a more environmentally acceptable method of disposal be instituted before any further plant expansion is permitted and that a hearing be held on or before December 31, 1991 requiring the Company to register a proposal detailing an alternate method of disposal of the soap stock.

Repap Manitoba Inc. - Phase I Modification and Expansion of the former Manfor Paper Mill Complex, The Pas

The former Manfor pulp and paper complex located just north of The Pas has a production capacity of a 400 tonnes/day Kraft pulp and paper. Licenced limits for atmospheric emissions of particulates and reduced sulphur had never been established. Wastewater emissions had been regulated under Federal regulations and guidelines. The Company had subsequently installed secondary treatment facilities and, with some exceptions,

discharges from the operation had met the Federal limits. As a result of pollution from Bunker C fuel oil and sewage, groundwater at the site had been severely contaminated and was no longer useable.

The Repap Manitoba proposal entailed a Phase I mill conversion providing for the conversion and the expansion of existing unbleached pulp and paper production from the existing 400 tonne/day Kraft mill to a 500 tonne/day bleached Kraft mill. The review and licencing of forestry management practices related to the provision of wood for pulp feedstock for the Phase I proposal were not included in the Manitoba Environment Minister's request for consideration as part of the Phase I proposal.

The major change to the mill under the proposal was to be the installation of a bleaching process unit and the conversion of paper production equipment to pulp production.

Chlorinated organics, resulting from the new bleaching process in the proposed Repap mill and which would be contained in effluent discharged to the Saskatchewan River, would be minimized through the use of new technologies, including an oxygen delignification process and the substitution of chlorine dioxide for a large portion of the chlorine normally used for bleaching. Chlorinated organics are a complex class of contaminants, including dioxins and furans and are, to varying degrees persistent and/or harmful to the environment. Dioxins and furans were predicted to be undetectable in the treated mill wastewater and concentrations of absorbable organic halides (AOX) to be less than 1.5 kg tonne of air dried pulp produced. The Phase I project design also called for the installation of new clarifiers to reduce the solid content of the wastewater. Additional aerators would also be installed to improve effluent quality. Downstream river impacts would be reduced significantly as a result of the use of an effluent discharge diffuser that would achieve rapid

mixing of effluent with river water. A new evaporator would eliminate up to 90% of the reduced odors currently experienced in The Pas area. A new electrostatic precipitator was proposed, to reduce present air borne particulates by approximately 60%.

A proposed summary of an environmental and operational monitoring program had been developed by the proponent and submitted to the Environment Department as part of the EIA.

At the hearing, a representative from the Federal Fisheries and Oceans Department presented additional information concerning recent documentation of chlorinated organic contamination of fish. This had been a problem associated with bleached kraft mills located in both marine and freshwater settings. Recently, a number of fisheries have been closed within defined boundaries near some older bleached kraft mills due to the level of dioxins detected in fish. The representative noted that to avoid this potential problem, suitable monitoring of the mill effluent and the river environment was essential.

Many presentations were received at hearings at both The Pas and Winnipeg from a wide variety of sources including citizens, scientists, unions, and environmental, business and native groups. In the main, although there were some reservations, citizens in The Pas favored the project. The provision was that limits on discharges should be set to protect the environment with monitoring in place to ensure that limits were met. A scientist gave testimony about the absence of sufficient background data in attempting to draw conclusions about the impacts from the wastewater. A number of native groups were prepared to give support as long as there was stringent compliance with all environmental requirements. They also wanted assurance that northern developments, including the Repap proposal, would benefit northerners. Almost without exception, there was a

call for an environmental monitoring committee with representation from the people living in the area. There was also a call for compensation in the event that the fishery was adversely impacted by the wastewater discharg from the new mill operatione. Union representatives welcomed the proposed expansion and upgrading of the pulp mill as long as the development took environmental protection into account.

On the other hand, some environmental groups expressed a desire to use this project as an example of environmental and economic compatibility - where there should be a commitment to the ideals of environmental protection, ecological integrity and sustainable development. Other groups spoke of a need for the implementation of recycling strategies and abhorred the production of bleached paper in the converted mill operation. They stated that bleached and coated paper poses a problem to recycling and believe that the market for unbleached paper will grow.

The Commission recommended that a licence be issued for both the current as well as the proposed operation. A series of limits, terms and conditions were placed on emissions to the air, water and soil that would respond to environmental concerns. In addition to base line monitoring, a program of ecosystem monitoring was proposed that would improve the data base before the operation started and could be used as the basis of comparison for post operation impact assessment. It was also recommended that a citizens advisory committee be appointed to serve in a monitoring overview capacity and as a liason with the Company.

OTHER HEARINGS

Provincial Road 340 Relocation

A proposal was filed by the Department of Highways and Transportation to relocate the portion of PR 340 that passes through the

Village of Douglas, in the Rural Municipality of Elton, to a new route east of the Village. The proposed relocation would permit widening of the road to current standards, would result in the avoidance of 4 sharp corners and would avoid the speed restrictions presently imposed in the Village. A number of alternatives for a new route had been examined and rated for preference by the Highway Planning Branch. The most highly rated alternative for a new route would require a new crossing over the Douglas Marsh and would rejoin the existing highway several kilometers south of the Village. The Department of Highways was prepared to confer with the Department of Natural Resources during the design phase of the project to ensure that impacts to the flow of water through the marsh were minimized.

Opponents of the project were principally concerned about the threat to the environment and the natural life which exists in the Douglas Marsh. This is a fen marsh which is rare in south western Manitoba, providing nesting grounds for many type of birds including Yellow Rails. As a matter of fact, the Douglas region is internationally renowned by bird watchers.

Spokespersons for the Village felt most people in the Village would favor a relocation.

The Commission recommended that the application by the Department of Highways and Transportation for a licence to relocate Highway 340 be refused and that the Highways Department further consider alternatives, with the protection of the marsh to be a major design consideration.

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Note: The Commission convened two additional hearings during the last month of the 1989/90 fiscal year. One was to consider an application

from the Water Resources Branch of the Department of Natural Resources for the construction and operation of a diversion of the Pembina River into Pelican Lake, and the second concerned a Ducks Unlimited Canada proposal for the construction of an office/interpretive centre complex in the Oak Hammock Marsh Wildlife Management Area. The matters brought under review at these hearings were developed and submitted in the following fiscal year. These hearings will, therefore, be outlined in the Commission's 1990/91 Annual Report.

PUBLIC HEARINGS 1989/90

Hearing Number	Date	Subject	Location
H-01-89/90	89/05/24	The Town of Beausejour concerning the expansion and operation of a wastewater collection system and a wastewater treatment lagoon system located on the NE 1/4 and NW 1/4 of Section 1-13-7 EPM and SE 1/4 of Section 12-13-7 in the Rural Municipality of Brokenhead with discharge of treated effluent into the Brokenhead River via the Bachman Drain.	Beausejour
H-02-89/90	89/05/29 89/05/30	The City of Portage la Prairie concerning the operation of a sewage sludge processing, handling and disposal operation in the Rural Municipality of Portage la Prairie.	Portage la Prairie
H-03-89/90 H-06-89/90	89/06/01 89/06/15	The Hudson Bay Mining & Smelting Co., Limited concerning the operation of a nickel/copper mine and mill complex commonly known as the Namew Lake Mine, located on the east side of Namew Lake, in Manitoba, within Township 60, Range 29 WPM.	The Pas, Man. Cumberland House, Sask.
H-04-89/90	89/06/07 89/06/08	The Manitoba Water Services Board concerning the development and operation of the Westlake Regional Water Supply System.	Carberry Gladstone
H-05-89/90	89/06/14	The Rural Municipality of Rhineland/ Town of Altona concerning the operation of a waste holding facility comprised of several liquid waste holding ponds.	Altona
H-07-89/90	89/06/23	The Department of Natural Resources - Water Resources Branch concerning the construction and operation of the North Duck River Headwater Storage Project Dam and Reservoir at Section 20, Township 35, Range 24 W in the Local Government District of Mountain.	Cowan

PUBLIC HEARINGS 1989/90

Hearing Number	Date	Subject	Location
H-08-89/90	89/08/08	Deago Properties concerning the operation of a sewage lagoon treatment system to service a proposed fifteen lot residential subdivision on Lots 51 and 52 in the Rural Municipality of St. Clements.	East Selkirk
H-09-89/90	89/08/09	COJEF Ltd. concerning the establishment of a site for the burning of trees and wood demolition waste in a depleted sand pit on P.L. 70 of the Parish of Portage la Prairie lying between the Railway Right of Way, Plans 213 P.L.T.O. and 236 P.L.T.O. which lies south east of Stephens Ave., Plan 1502 P.L.T.O.	Portage la Prairie
H-10-89/90	89/08/10	The Department of Highways & Transportation concerning the relocation of Provincial Road #340 in the vicinity of the Village of Douglas.	Douglas
H-11-89/90	89/08/21 89/08/22 89/08/23 89/08/24 89/08/28 89/08/29 89/08/30 89/08/31 89/09/01 89/09/05 89/09/06 89/09/14	Repap Manitoba Inc. concerning the operation of the existing 400 tonne per day Kraft Pulp Mill and the conversion to a 500 tonne per day Bleached Kraft Mill operation.	The Pas Winnipeg

PUBLIC HEARINGS 1989/90

Hearing Number	Date	Subject	Location
H-12-89/90	89/11/02	The Norquay Holding Co. Ltd. (Milltown Colony) concerning the construction and operation of a wastewater collection system and a wastewater treatment lagoon located on NE 1/4 7-12-4 WPM in the Rural Municipality of Portage la Prairie, with discharge of treated effluent by irrigation onto agricultural land.	Poplar Point
H-13-89/90	89/12/07 89/12/19	Highway Gardens Ltd. concerning the operation of a wastewater collection system and a wastewater treatment lagoon located in part of the south half of River Lot 78, Parish of St. Andrews, within the Rural Municipality of St. Andrews, with effluent discharge via a drainage ditch to the Red River.	West St. Paul Lockport
H-14-89/90	89/12/12	The Airport Holding Co. Ltd. (Airport Colony) concerning the construction and operation of a wastewater collection system and a wastewater treatment lagoon located on the NE 1/4 5-13-8 WPM in the Rural Municipality of Portage la Prairie and the disposal of treated effluent by irrigation onto land owned by the Airport Holding Co. Ltd. or by surface discharge to Long Creek.	Westbourne
H-15-89/90	90/01/15	The Whiteshell Holding Co. Ltd. (White-Shell Colony) concerning the construction and operation of a wastewater collection system and a wastewater treatment lagoon located on the SE 1/4 33-12-11 EPM in the Rural Municipality of	Whitemouth

PUBLIC HEARINGS 1989/90

Hearing Number	Date	Subject	Location
H-15-89/90 (cont'd)		Whitemouth, and the operation of an effluent irrigation system with discharge of treated effluent onto land owned by the Whiteshell Colony.	
H-16-89/90	90/01/30	The Rural Municipality of Portage la Prairie concerning the construction and operation of a liquid waste disposal facility located in the SW 1/4 of Section 22, Township 13, Range 5 WPM in the Rural Municipality of Portage la Prairie.	Portage la Prairie
H-17-89/90	90/03/08	The Department of Natural Resources - Water Resources Branch concerning the construction and operation of a river diversion and dam facilities collectively known as the Pelican Lake Enhancement Project.	Ninette Brandon
H-18-89/90	90/03/26 90/03/27 90/03/28	Ducks Unlimited Canada concerning the construction and operation of a conservation/interpretive centre/ office complex and wastewater treatment lagoon system located on portions of Section 4 and 9 in Township 14, Range 3 EPM, in the Oak Hammock Wildlife Management Area, in the Rural Municipality of Rockwood with final disposal of effluent from the wastewater treatment lagoon into the Oak Hammock Marsh.	Winnipeg

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NOTE: Following each of the foregoing hearings, reports with recommendations for licencing were proposed by the Commission and submitted to the Environment Department. Copies of these reports are available from the Commission on request.